#### ILLINOIS HIGHWAY INFORMATION SYSTEM ROADWAY INFORMATION AND PROCEDURE MANUAL ITEM NO. 18 **ITEM NAME SURFACE TYPE** PAGE 1 of 6 NON-**ENTERED BY** STATE STATE **HPMS** MUNI EFFECTIVE DATE **District Program Development** YES YES YES 11/01/00 YES UPDATE REPORTS **UPDATE SCREENS** INQUIRY SCREENS (14) Physical Characteristics (14) Phys Char - Surf & Shld (64)Phys Char - Surf & Shld

### **DESCRIPTION AND PURPOSE OF ITEM**

This item indicates the driving surface type along with the underlying pavement structure of the through lanes of a highway.

This information is used for mapping and to organize highway data by type of surface.

This item can be determined from construction plans or, if plans are unavailable, field review. If in question, contact the district Bureau of Program Development.

Note: This item is recorded on IRIS and transferred, by computer, to IRRIS "Is the Highway Paved" (Item 62).

### **CODE AND SCREEN ENTRY INSTRUCTIONS**

Description

A 3-digit numeric code.

Map Symbol

Enter the appropriate code in its entirety.

Code

wap cymbol	<u>0000</u>	<u>Becomption</u>
*	010	<u>Unimproved</u> – A road using the natural surface and maintained to permit bare passability for motor vehicles, but not conforming to the requirements for a graded and drained earth road. The road may have been bladed and minor improvements may have been made locally.
*	020	<u>Graded and Drained</u> – A road of natural earth aligned and graded to permit reasonably convenient use by motor vehicles and with drainage systems (natural and artificial) sufficient to prevent serious impairment of the road by normal surface water, and with or without dust palliative treatment or a continuous course of special borrow material to protect the new roadbed temporarily and to facilitate immediate traffic service.

<sup>\*</sup> Note: Indicates Old Map Symbol

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### **CODE AND SCREEN ENTRY INSTRUCTIONS**

Map Symbol	<u>Code</u>	<u>Description</u>
*		<u>Soil-Surfaced</u> – A road of natural soil, the surface of which has been improved to provide more adequate traffic service by the addition of (1) a course of mixed soil having A-1 or A-2 characteristics, such as sand-clay, soft slate, or topsoil, or (2) an admixture such as bituminous material, Portland cement, calcium chloride, or fine granular material (sand or similar material).
	100	Without dust palliative treatment
	110	With dust palliative (oiled) – A graded and drained natural earth or soil surfaced road (100), the surface of which has been improved to provide more adequate traffic service by the addition of road oil. Also includes surfaces which have had sand or chips added to the surface for blotting purposes.
*		<u>Gravel or Stone</u> – A road, the surface of which consists of gravel, broken stone, slag, chert, caliche, iron ore, shale, chat, disintegrated rock or granite, or other similar fragmental material (more coarse than sand) with or without sand-clay, bituminous chemical stabilizing admixture or light penetrations of oil or chemical to serve as a dust palliative.
	200	Without dust palliative treatment
	210	With dust palliative treatment – On an oil-earth road (110) to which aggregate has been added to the extent where the surface has the characteristics of a gravel road.
*	300	Bituminous Surface-Treated (low type bituminous) – An earth road, a soil-surfaced road, or a gravel or stone road to which has been added by any process a bituminous surface course with or without a seal coat, the total compacted thickness of which is less than 1 inch. Seal coats include those known as chip seals, drag seals, plantmix seals, and rock seals.

<sup>\*</sup> Note: Indicates Old Map Symbol

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Map Symbol		CODE AND SCREEN ENTRY INSTRUCTIONS
	<u>Code</u>	<u>Description</u>
*	400	Mixed Bituminous (low type bituminous) – A road, the surface course of which is 1 inch or more in compacted thickness composed of gravel, stone, sand, or similar material, mixed with bituminous material under partial control as to grading proportions. Low type (less than 7 inches combined thickness surface and base).
	410	<u>Bituminous Penetration (low type bituminous)</u> – A road, the surface course of which is 1 inch or more in compacted thickness composed of gravel, stone, sand, or similar material bound with bituminous material introduced by downward or upward penetration. <u>Low type</u> (less than 7 inches combined thickness surface and base).
* = = = = = = = = = = = = = = = = = = =		High Type Bituminous (flexible base) – Mixed bituminous or bituminous penetration road (Overlay 1 inch or more in compacted thickness) on a <u>FLEXIBLE</u> base with combined surface and base thickness 7 inches or more. Includes any bituminous concrete, sheet asphalt, or rock asphalt.
	500	Bituminous Surface Treated – Mixed bituminous, or bituminous penetration.
	501	Over PCC - Rubblized - Reinforcement unknown
	510	Over PCC - Rubblized - No reinforcement
	520	Over PCC - Rubblized - Partial reinforcement
	525	Over PCC - Rubblized - With No or Partial Reinforcement - But having Hinged Joints
	530	Over PCC - Rubblized - Full reinforcement
	540	Over PCC - Rubblized - Continuous reinforcement
	550	Bituminous Concrete (other than Class I), Sheet Asphalt or Rock Asphalt
	560	Bituminous Concrete Pavement (Full-Depth) – One or more Class I bituminous concrete binder and surface courses constructed on an improved subgrade. Minimum total thickness during the contract of 6 inches of bituminous concrete.

55

\* Note: Indicates Old Map Symbol

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### **CODE AND SCREEN ENTRY INSTRUCTIONS**

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Map Symbol	Code	Description
*		High Type Bituminous (rigid base) – Any bituminous surface treatment (Overlay 1 inch or more in compacted thickness) on any RIGID base (PCC pavement and brick) with a combined surface and base thickness of 7 inches or more. Includes any bituminous concrete, sheet asphalt, or rock asphalt.
	600	Over PCC - Reinforcement unknown
	610	Over PCC - No reinforcement
	615	Over PCC - No reinforcement but having short panels and dowels
	620	Over PCC - Partial reinforcement
	625	Over PCC - With No or Partial Reinforcement - But having Hinged Joints
	630	Over PCC - Full reinforcement
	640	Over PCC - Continuous reinforcement
	650	Over Brick, Block, Steel, or similar material
*		<u>Portland Cement Concrete (PCC)</u> – A road consisting of Portland cement concrete with no bituminous overlay.
	700	Reinforcement unknown
	710	No reinforcement
	720	Partial reinforcement
	725	With No or Partial reinforcement but having Hinged Joints
	730	Full reinforcement
	740	Continuous reinforcement
	760	Non-Reinforced over PCC - Reinforcement unknown
*	Note: Inc	dicates Old Map Symbol

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### **CODE AND SCREEN ENTRY INSTRUCTIONS**

Map Symbol	<u>Code</u>	<u>Description</u>
	762	Reinforced over PCC - Reinforcement unknown
*	765	Non-Reinforced over PCC - No reinforcement
	767	Reinforced over PCC - No reinforcement
	770	Non-Reinforced over PCC - Partial reinforcement
	772	Reinforced over PCC - Partial reinforcement
	775	Non-Reinforced over PCC - With No or Partial reinforcement but having Hinged Joints
	777	Reinforced over PCC - With No or Partial reinforcement but having Hinged Joints
	780	Non-Reinforced over PCC - Full reinforcement
	782	Reinforced over PCC - Full reinforcement
	790	Non-Reinforced over PCC - Continuous reinforcement
	792	Reinforced over PCC - Continuous reinforcement
	NOTE:	Reinforcement Definitions:
		NONE – No reinforcing steel. (Joint tie-rods, dowels & load transfer devices are not considered as reinforcing steel).
		PARTIAL – Under 30 pounds of reinforcing steel per 100 square feet. (Including marginal and corner reinforcement).

FULL – Over 30 pounds of reinforcing steel per 100 square feet.

HINGED JOINTS – A sawed and sealed joint which is held closed by deformed reinforcing bars and intended to preclude mid-panel

CONTINUOUS – Continuous longitudinal reinforcement achieved by lapping the reinforcing steel.

cracks with a maintainable joint.

<sup>\*</sup> Note: Indicates Old Map Symbols

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#### **CODE AND SCREEN ENTRY INSTRUCTIONS**

Map Symbol	<u>Code</u>	<u>Description</u>
*	800	Brick, Block or Other – A road consisting of paving brick, stone, asphalt, wood, or other block. Also includes steel or wood with or without a bituminous wearing surface less than 1 inch in compacted thickness.

<sup>\*</sup> Note: Indicates Old Map Symbols

#### Variable

<u>Combination Type</u> – A road on which the wearing surface consists of two or more individual types, each being of such depth as to be classed logically as a part of the traffic-bearing road surface rather than as surfaced shoulders.

## Digits 1 2 3

- 9 - The FIRST digit (always code "9") indicates combination type
- 9 0 The SECOND digit indicates the HIGHEST type comprising a combination type road
- 9 0 The THIRD digit indicates the NEXT HIGHEST type comprising a combination type road

The codes used for digits 2 and 3 are as follows:

- 0 Unimproved or Graded and Drained
- 1 Soil-Surfaced
- 2 Gravel or stone
- 3 Low Type Bituminous Surface-Treated
- 4 Low Type Bituminous Mixed or Penetration
- 5 High Type Bituminous Flexible Base
- 6 High Type Bituminous Rigid Base
- 7 Portland Cement Concrete
- 8 Brick, Block or Other

Note: Combination Surface Types must not be recorded to correlate to Key Route Directionof-Inventory. IRIS is designed to display information using non-Key Route alignments, therefore, assigning values base on Key Route causes those values to be incorrect for other systems.